Quasiparticle Scattering Induced by Charge Doping of Iron-Pnictide Superconductors Probed by Collective Vortex Pinning

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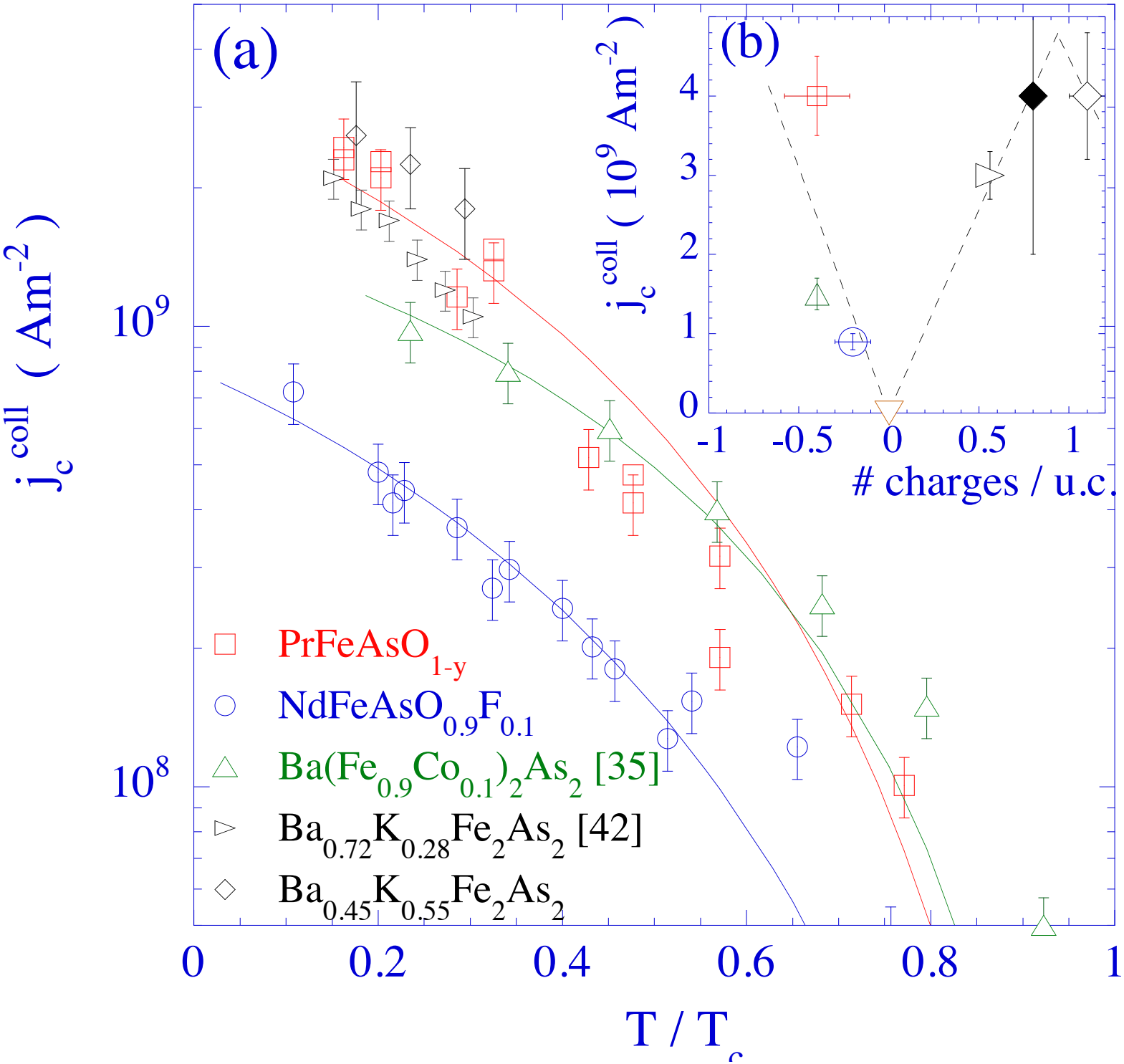
(a)
(b)
j_c^{coll} (Am^{-2})
10^9
10^8
0
0.2
0.4
0.6
0.8
1
T / T_c
j_c^{coll} (10^9 Am^{-2})
4
3
2
1
0
-1
-0.5
0
0.5
1
charges / u.c.
$PrFeAsO_{1-y}$
$NdFeAsO_{0.9}F_{0.1}$
$Ba(Fe_{0.9}Co_{0.1})_2As_2$ [35]
$Ba_{0.72}K_{0.28}Fe_2As_2$ [42]
$Ba_{0.45}K_{0.55}Fe_2As_2$